ABSTRACT OF THE DISCLOSURE

An engine control system stores data indicating a monitor frequency ratio for each failure diagnosis target item in EEPROM and standby RAM being backed up by a battery. The failure diagnosis target items are designated based on Rate Base Monitor Method. A data item of the data indicating a monitor frequency is incremented by one, at one time at the maximum, for one operation period of the system. When the system starts its operation, whether a value S [i] in standby RAM is greater by one than a value E [i] in EEPROM is determined for each data item. When the determination is affirmed for a given data item, it is determined that storing of the given data item is not completed in EEPROM for the preceding operation period. The value S [i] is thereby written in EEPROM.